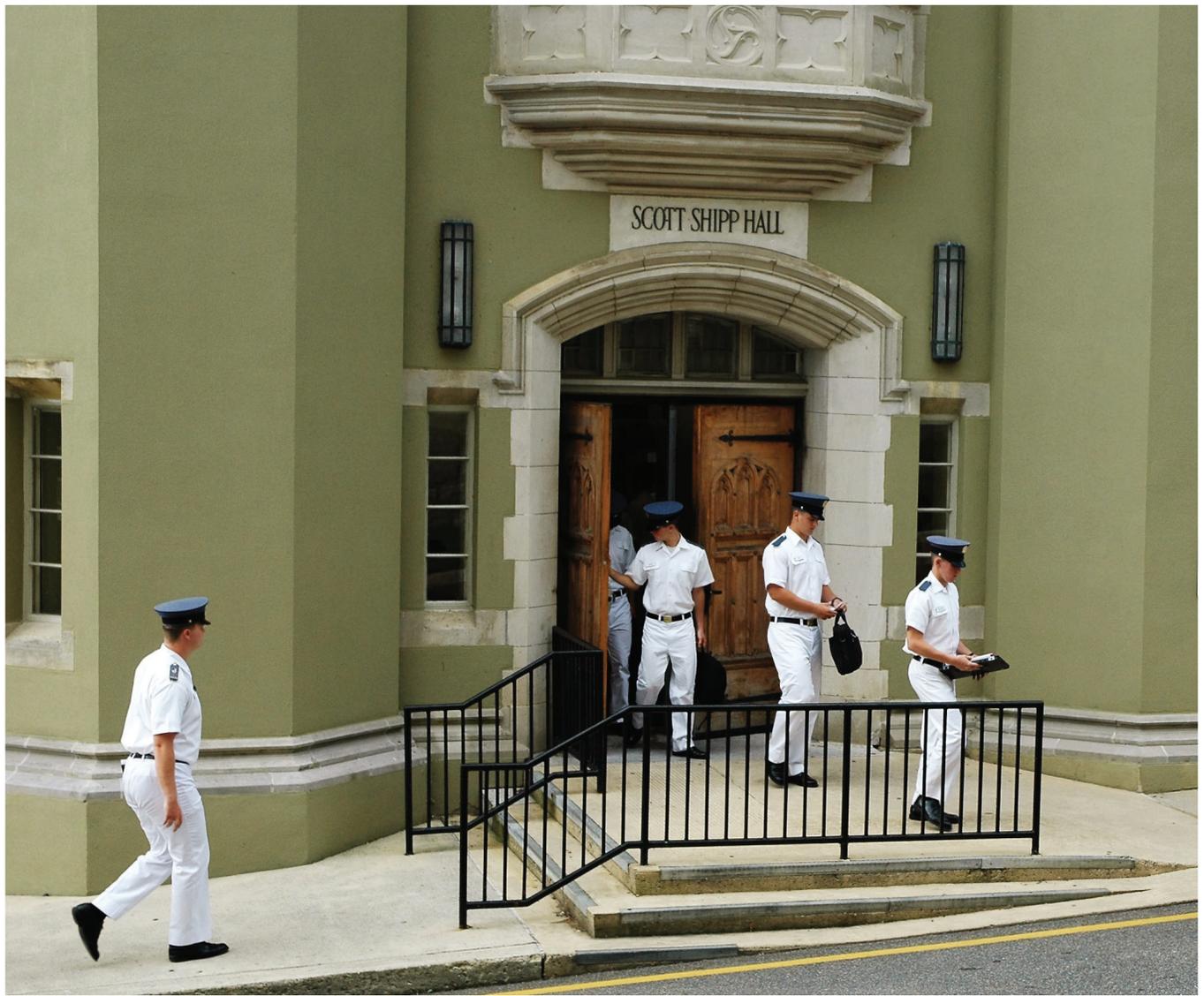


THE EDGE

FALL 2016

ECBU DEPARTMENT NEWSLETTER



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- Making Statistics Fun
- Cadet Analytics Consulting Group Created



INTRODUCING THE EDGE

You have in your hands the first issue of a new publication, an infomercial for our department. The subject is us, but US in a broad sense. It is about our cadets, it is about our teaching, our research, our guest speakers, our committees, our clubs: the Entrepreneurship Club, Cadet Investment Group, those who influence our lives, those who speak at our seminars, in short, the ECBU Department/world.

WHY THE NAME?

Why are we calling it The Edge? Think about what an edge is—its associations, its symbols: the edge of opportunity, the competitive edge, the edge of knowledge, of wisdom. Create your own interpretation, that's what makes it interesting, and thoughtful.

THE MISSION

Our mission is to publicize the ECBU department of VMI with news and views of the business world as we see it. The Edge will become the ECBU/VMI newsletter, electronic and printed. The printed version will come out once per year, the blog will be ongoing, throughout the year responding to breaking or developing news.

VMI RANKING IN *MONEY* MAGAZINE

Virginia Military Institute is ranked eighth among liberal arts colleges nationwide in a recent issue of *Money* magazine—their annual college rankings issue. Overall VMI ranked 42nd among more than 700 public and private colleges and universities nationwide, up from 48th in *Money's* 2015 college rankings. In compiling its rankings, *Money* took into consideration twenty-four factors in three equally weighted categories: educational quality, affordability, and alumni success. Of particular importance, and most relative to those who major in the ECBU Department, is how we rank in the third category they measure—alumni success. In this survey, *Money* used alumni earnings, both within five years of graduation and mid-career. *Money* reported that a VMI graduate's average salary within the first five years as \$56,400.

The department is changing too—responsive to the changing demographics of VMI in general. For example, we have seventy-three majors in the class of 2017–18 more than the year previous and five females (over three) from the year previous (an increase of not quite 50%).

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ECBU DEPARTMENT NEWSLETTER

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The Edge is the newsletter of the **Economics and Business Department** (ECBU) of The Virginia Military Institute (VMI) located in Lexington, Virginia. As a registered institute of higher learning and an accredited member of the AACSB, our mission is to educate the young men and women enrolled in this institution. Our courses specialize in all aspects of economics and business with an ongoing effort to provide enlightenment and focus of the world in which our students will emerge after graduation. We welcome readership involvement and are interested in your opinion. We are strongest with your involvement. We encourage students, faculty, alumni, and interested friends of VMI to submit articles and article ideas. Send them to macdonaldbn10@vmi.edu.

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A PROFESSOR'S PASSION: MAKING STATISTICS FUN WITH REAL WORLD EXAMPLES

Professor and Colonel Sam Allen enjoys teaching summer school—the students are more rested, the atmosphere more relaxed. This fall, he will be teaching a new subject for him—Statistics.

Question: I have heard that statistics can be boring, and challenging to teach. How do you counter that?

Good question. I think you can do it by finding real life examples where statistics come into play. Here's one: I discovered a book called *How Not to Be Wrong* by Jordan Ellenberg. Here is what the *NY Times* said about him:

"Jordan Ellenberg's *How Not to Be Wrong* is a miscellaneous romp through the world of quantitative reasoning, promising to explain such mysteries as why so many handsome men are jerks or why an athlete's performance always seems to suffer a drop-off after he signs a big contract."

This quality may sound like a bug, but in fact it's a feature. It makes it a rewarding popular math book, and I will use it in class. Here is another Ellenberg-like analogy from WWII: the dilemma for the War Department back then was "Should we make bombers light and

fast, with little armor, like the B-24, or heavy and tough, with lots of armor plate, like the famous flying Fortress, the B-17?" I will create two teams, and they will develop competing arguments, for fast light bombers vs heavy safer bombers, and we will discuss this in class and use available statistics to support their arguments.

Another analogy I might use is from Alan Turing, his Enigma Machine. The Allies had the knowledge (once Turing had cracked the Nazi's code) but in some cases couldn't use it for fear of revealing that we *had cracked* their code. In class we will watch the film.

Still another area I have been exploring (and having fun with) is digging into the theory of how people behave. I buy into David Kahneman's beliefs about behavior. He believes that people react to one of two impulses, hard-wired into each of our logic centers. One is called System Two—when people make decisions based on careful, thorough analysis. They are the kind of shoppers who read the ingredients on the back of a package and act on the logic in them. In System One people—consumers act on impulse. Here the



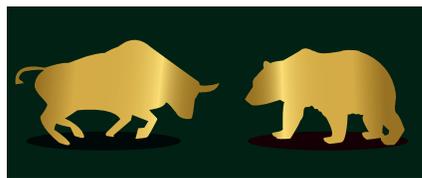
decision is more instantaneous—they might make the buy decision based on a celebrity endorsement on the package or from an advertisement. And, we can explore these influences and back them up with statistical research. And here's an outlier—a sympathy factor—do people buy Newman's Own salad dressing because of the good feeling they get knowing that all the proceeds from a sale go to charity?

CIG, DEALING WITH A VOLATILE MARKET

One of the most dynamic, and popular organizations within the ECBU Department's cadet community is the Cadet Investment Group (CIG). The group's mission is to learn about the markets, stock analysis, and trading. To do this, members serve as officers, managing directors, and investment analysts. Each year there are just forty-four members, and they have to be selected into the club. Eight cadets serve as officers. And three teams compete to see which will produce the best results in special categories: large

cap stocks, mid cap stocks, and small cap issues. And investments are made, with real money.

The volatility of the stock market from summer of 2015 through the first quarter of 2016 provided a learning experience like none other. It was a real roller coaster with significant sell offs in the summer of 2015. The group made use of stop loss orders to manage downside risk—and the portfolio went from 85% equity/15% cash in May of 2015, to 20% equity/80% cash in September of 2015. The real



world lessons were intense and the group worked diligently to find good investment opportunities so that by late April 2016 the market value of the combined portfolios (large cap, middle, and small) market value was approximately \$305,000 and over 50% invested in equities.

INTERNSHIP NEWS

When classes ended in May of this year, the ECBU department had an unprecedented

number (thirty-two, in fact) of cadets leaving to be interns at interesting jobs—in Richmond, Washington, New York,

and out West. Here are reports from three of our busiest cadets Alice Chiu, Cannon Clark, and Del Fuller.



ALICE CHIU (TZE TING CHIU), CLASS OF 2018, INTERNED AT THE FEDERAL RESERVE BANK THIS SUMMER.



Question: Alice, can you describe a typical day at the Reserve Bank for us?

Sure I can. An internship within the Federal Reserve System is much more than just a cool title. At the Fed of Richmond, it is a great learning experience, the 5th District has an outstanding program to maximize our learning experience while having fun.

I was one of the four Corporate Accounting Student Interns last summer. The corporate accounting department consists of nearly sixty accounting professionals, and I worked closely with the Asset Management (AM) group, also known as the fixed assets group. The department is organized into “Get to Know” sessions for all the interns and new employees to learn about these different function groups. My responsibilities within AM included

tracking fixed assets, depreciation, and amortization for the District and for FRIT (Federal Reserve Information).

The AM team was very helpful, however, and they provided me on-the-job training on specific tasks and provided me a copy of the *Financial Accounting Manual for Federal Reserve Banks*.

Everyone on the team was very approachable. They are patient when explaining a concept or a procedure to me and very forgiving and supportive when I made a mistake. I was able to set an appointment with the CFO and discuss how finance is different between a reserve bank and a commercial bank, and learned that a reserve bank focuses more on internal financing and compliance due diligence while a commercial bank involves actual capital investments. It was a great summer.



CANNON CLARK, CLASS OF 2017, INTERNED AT BARCLAY’S BANK IN NEW YORK CITY THIS SUMMER.



I started work on June 1, after finding an affordable apartment in Manhattan—which wasn’t easy. I find the city exciting and challenging, but life at Barclay’s Bank, even more so—especially after the unexpected Brexit vote happened. Being in New York City has been an experience unlike any other. Skyscrapers as tall as you can see and people racing to and from work—it is an accomplishment for a small-town kid from Idaho. Like so many anxious interns, I got to the city a few days early and mapped out the most efficient metro route and gave myself enough time to fumble a little with direction. I was quickly emerged in the feverish work culture at Barclays.

I felt like I was fully capable of working the full-time hours of a big

Trans-Atlantic Bank without hesitation because of how VMI pushes it cadets. Secondly, I was overly grateful that the Economics and Business Department helped to push me to learn and absorb the information and found that the finance classes I took were particularly applicable and relevant.

To any cadets who are thinking about an internship after their second-class year, I have only one piece of advice—do not sell yourself short. VMI has prepared you sufficiently to compete for a spot at the table. This summer has been exciting and challenging and has been an excellent experience that I hope more cadets can have.



DELL FULLER, CLASS OF 2017, INTERNED FOR THE WASHINGTON REDSKINS THIS SUMMER.



Del Fuller had a very interesting summer—as an intern for the Washington Redskins. It all started at a neighborhood Super Bowl party in February at his home in Midlothian, Virginia. A neighbor asked Del what he was going to do in the summer. He replied that his plans were

still flexible. Del's ears perked up when that same neighbor mentioned that her son was interning for the Washington Redskins. Del asked permission to call her son—and did the very next day. Two days later he got the offer, even before his resume was sent! And on May 23rd, Del reported to Redskins Park in Ashburn, Virginia—the spring training area. He felt comfortable from the start—players and coaches were welcoming—and very happy—he had realized a dream—and a goal, to have a career in sports marketing.

When the team moved to its home field, Fed Express Field (built in 1997 with a 79,000 seat capacity) in Landover, Maryland, he learned more about the nuts and bolts of the job. Essentially all operations for the Redskins are controlled by CEO Dan Snyder and according to Del, divided into five categories: Marketing, Hospitality, Corporate Affairs, Finance, and Scouting. He was assigned to the marketing division, but he soon learned that it was a flexible category. There were some pre-season events, like a “Guns and Roses” concert in summer and a few pre-season games, but when the season

began he found himself assigned to the Hospitality division and specifically the Owners Club (of which there are two, Owners Club East and Owners Club West). Within that category there are 300 suites on three levels in the stadium: The Owners Club level, the Executive level, and Loge. Inside each suite there is a large open bar, catered food available, and they are essentially sold to corporations for the purpose of entertaining their clients (this is where the Marketing element kicks in). Del's responsibilities were fluid and involved sometimes studying how the suites were used—for strictly social purposes, for deal making, given as rewards, and more. Del claims that the game and the seats in the suites are responsible for about 20% of the value of the annual revenues. His study revealed as many as forty networking events, involving (once) a Trump sponsored golf tournament, catering at the field, and the Guns and Roses concert already mentioned. He was one of five interns in his department. Del will graduate this coming May and has a strong chance of returning to the Redskins as an employee next spring.

ECBU AD CLASS COMPETES IN NATIONAL AD COMPETITION

The Advertising Class taught by Adjunct Professor Bruce Macdonald placed second out of 12 schools in an intercollegiate contest sponsored by the American Advertising Foundation, a Washington-based organization. Each year, the AAF sponsors a contest in which a prominent product becomes the subject of that year's intercollegiate ad competition. Then, competing colleges across the United States prepare an advertising marketing plan book and live presentation before judges to determine the winner, first by region, then nationally. For 2016, the client was Snapple, the popular bottled tea and juice drink.

The actual presentation day was on April 14, before five judges—men and women from the advertising industry, as well as Snapple. ECBU's Ad class scored a second in the competition for our region in the group that elected to compete virtually.



The presenting team, flanked by Prof. Macdonald and Advisor Andy Wolfe, with VMI Dean of Faculty, Brigadier General Jeffrey Smith, in the center.

GUEST SPEAKER

The ECBU guest speaker in May this year was Thomas M. Hoenig, vice chair and member of the Board of Directors of the Federal Deposit Insurance Corporation (FDIC). Prior to joining the FDIC board, Dr. Hoenig was the President of the Federal Reserve Bank of Kansas City and a member of the Federal Reserve System's Federal Open Market Committee from 1991 to 2011. Hoenig is alone among Fed officials in advocating tighter monetary policy. But he does share concern over the state of the labor market, and said given the current level of unemployment, "there is, understandably, a desire and considerable pressure for the Federal Reserve to "do something, anything" to get the economy back to full employment." His talk at VMI, part of the regular ECBU/Roberts speakers program, was widely attended and well received.

WITH REGRET

It is with great regret that the Economics and Business Department of VMI must announce the passing in June of one of its strongest supporters, John Watt Roberts at age 97. He took a keen interest in all VMI affairs, even though he was not a graduate of our institute. He supported our activities and projects enthusiastically and monetarily. Mr. Roberts served on the VMI Board of Visitors, the VMI Foundation Board. He established the John W. and Jane M. Roberts Free Enterprise Program in the ECBU Department to support two professorships, lectures, internships, and continuing research to promote the growth of future business leaders who can use their knowledge for positive community impact.

We will miss him, but intend to carry on many of his concerns and goals in his name. Mr. Roberts founded one of the premiere building products companies in the nation, and with a partner founded the N.E. Solite Corporation. Such structures as the Chesapeake Bay Bridge, the Dulles International Terminal and currently the new Comcast Tower in Philadelphia, were all built with the concrete from N.E. Solite Corporation.

BUILDING BRIDGES

Professor and Colonel Tinni Sen has been creating bridges of understanding and goodwill for some time now, joining the cadets at VMI with the needs of the Lexington community through VMI programs—the Habitat Build for Women program

being the first on our campus. It all started two years ago when she and Lt. Col. Dimitrova-Grajzl joined forces to create a project that would help the women cadets and the faculty and staff to get to know each other better. The mutual project fed into the existing **Habitat Women Build** program: a program for women who want to learn construction skills and build homes and communities. Professor Sen's idea succeeded—joining female faculty and staff and female cadets in a common project. The program expanded into "Building Bridges" cadet service club. Membership is open to the entire corps of cadets. Together they built at least eight houses in the period between 2013 and this year.

Col. Sen built a second bridge, this one with **Project Horizon**—a community service organization that aids victims of domestic violence. Project Horizon provides counsel, legal protection, and a safe haven for victims of family abuse. The cadets who took

part in this program had to be trained to learn how to offer the right kind of advice on a sensitive subject—and sometimes just over a crisis hotline. Sessions to train volunteers normally take eighteen hours of training—too much time for a typical VMI cadet—so Col. Sen convinced them to offer special modules of two hours in duration for our cadets, over a defined period, and eighteen cadets participated last year. Current plans call for building yet a third "bridge," this time with the SPCA, but Col. Sen is open to any worthwhile cause that she and our cadets can offer our community. The goal, as she expressed well, is to make young cadets (of any gender) aware of the larger issues and needs that exist in our social structure and to help with these problems.

In her limited spare time, Col. Sen is also writing a book called *Predicting Conflict* with two colleagues and her husband, Col. Atin Basu, as well as raising two teenage girls.



NEW BOOK BY ATIN BASU (WITH COLLEAGUES)

I met with Col. Atin Basu at the end of July to learn more about the book he is writing, in collaboration with Tinni Sen—his wife, Jim Bang of Saint Ambrose University, and John David, Assistant Professor of math at VMI.

It is called *Predicting Conflict* and this was the day they finished it—the last chapter. A few hours before we met at a restaurant in Lexington, he had sent it off to the publisher (Rowman and Littlefield) in Maryland—so we were in a sense, celebrating. It was a book that the publisher had commissioned the four authors to write. Atin explained its very interesting concept: that it is possible to analyze and predict the incidence of conflict between nations before it happens, using empirical data gleaned from data relating to trends, attitudes, and important markers of conflict brewing.

I asked him, “What are some of the factors one thinks of in predicting conflict between nations?” He emphasized that only one passes their test—the result of bargaining failure. Asked to explain further, I learned that the ones I suggested, like poverty, ethnicity, or religion, are not the most prominent. These are only factors that will always be around. The real culprit is bargaining failure, and only it passes the test. He expanded this premise to include a lack of economic opportunity—which often precedes the condition for bargaining failure. I asked him if such were the causes of the Crusades, World War II, the troubles

in Northern Ireland in the 1980s, or the Iraq war, even the Palestine/Israel conflicts. He pointed out that others have explored this territory, and Atin referred me to a new book by Steven Pinker on this subject, called *The Better Angels of Our Nature*. Pinker, a professor of psychology at Harvard, addresses some of the biggest questions we can ask: Are human beings essentially good or bad? Has the past century witnessed moral progress or a moral collapse? Do we have grounds for being optimistic about the future? Pinker thinks that most of what we believe about violence is wrong. To convince us, he sets himself two tasks. First, to demonstrate that the past was a far nastier place than we might have imagined. Second, to demonstrate that the present is far nicer than we might have noticed.

These are weighty issues, resulting in differing interpretations. Atin Basu and Steven Pinker are optimists, and they both know that there is no guarantee that the trends in their books will continue.

I also asked Atin about his yearly trip to France every spring to teach at St. Cyr, the French military academy that produces most of that country’s best leaders. L’École Spéciale Militaire de Saint-Cyr, the French national military academy at Coëtquidan, was founded in Fontainebleau in 1803 by Napoleon Bonaparte.

“It all started at a conference I attended in Turkey six or seven years ago. I met another professor who taught at St. Cyr—we were out of uniform



but our nametags gave us away—we connected since we were the only two teaching college level courses at military service colleges. He invited me to do a one-week seminar at St. Cyr, and I have been doing it ever since. I usually have between fifteen and twenty students, and I talk about the economic effects of conflict, and variations on that theme. Their St. Cyr students are bright—and like ours, incredibly disciplined.”

Finally, I asked Atin for his impressions of teaching at VMI. He put it well. “For many of our cadets we are a transformative experience, introducing young men and women to the requirements of learning and achievement (such as discipline, time management, etc.) in a way that, perhaps for the first time, changes their lives. To use a sports simile, ‘We Teach cadets to punch above their weight.’”



THE BIRTH OF THE CADET ANALYTICS CONSULTING GROUP

Major and Assistant Professor Ben Grannan has created The Cadet Analytics Consulting Group (CACG). It grew out of his interest in finding real world problems for our ECBU cadets—and the subjects and areas of interest are seemingly infinite! There are approximately twenty-five cadets and they meet during Dean’s time on Mondays or sometimes combine it with lunch at Crozet. I attended a meeting in October and met and talked with five cadets: Stephen Eller, Nathan Miller, Jake Goulet, Joe Bobay, and Drew Borenstein (all Firsts) who are called “leaders” in the group—and the other twenty are “analysts.” The mission of CACG is to “help the community and local businesses optimize their business solutions through the use of analytics.” The service offered is free, the reward to the business or the institution is potentially invaluable, and the value to the cadets is priceless.

The first project I learned about was a study conducted for the “Valley Baseball” League, a Shenandoah Valley Baseball League. The goal in this case is to create games and match ups of teams in the valley that coordinate well with games on holidays, weekends, etc. This project is directly serving the needs

of Don Lemish, Commissioner of Valley Baseball.

Other applications of the group’s analytics involve the optimal use of “chiller systems” for a local institution and a corporate officer’s need to plan the rooming pattern for a “workers retreat.”

One of the most interesting is for the “Mainstreet Group,” whose mission is to “enhance, sustain, and promote downtown Lexington” and is headed by Stephanie Wilkinson and Jamie Goodwin in Lexington. Ms. Wilkinson explained her request: to analyze financial data of real estate properties’ valuations in Lexington against the recorded (over time) value of their properties. There is an enigma connected to this issue as well. Ms. Wilkinson has noticed that while the percentage of the total property tax assessment has increased over the last fifty years, it has also fluctuated frequently and widely in this same period—resulting in anything but a steady trend line. Property value



Stephen Eller, Nathan Miller, Joe Bobay, Drew Borinstein, and Major Grannan

assessments are of course affected (and reduced) by the two large universities in the area (which are tax exempt) as well as other NGOs like the Farmers Cooperative, the many churches, some national fraternal organizations (like Sigma Nu or PKA), and some medical clinics. Ms. Wilkinson would like to understand this situation better and anticipate real income from property taxes. One figure stood out from this briefing, with the potential for future problems: the overall assessed value (for the beginning of 2017) of all the real estate in Lexington is \$1.4 billion—64% of which is exempt, meaning that the remaining 36% must carry the burden of supporting the city’s future needs. That could lead to a serious future problem.

So, that is the busy schedule and agenda of Major Grannan’s exciting new group, one about which the cadets and Major Grannan are justifiably excited. This CACG group is truly into the events of these times and one that involves the best minds in the ECBU department. They are looking for new members, and any cadet reading this who is interested should consider joining—any discipline or field of study will be considered. The real world experience that will result will have excellent potential for internships and post-graduation jobs and should be carefully considered. For more information, contact: Grannanbc@vmi.edu, 540-464-7452.



Stephanie Wilkinson meeting with two cadets.